AC/DC AND 13-V CAR-RADIO VALVES WITH SIDE CONTACT BASES

Type Number	Valve type	Maximum dimensions mm	Base (Connection reference in brackets) [15]	Application (see p. 2)	Filament data: Heating	Filament data: Voltage Volts	Filament data: Current Amps.	Anode voltage Va Volts	Anode current Ia mA	Neg grid bias Vg_1 Volts	Screen-grid voltage Vg_2 Volts	Screen grid current Ig_2 mA	Voltage on grids 3 (and 5) $Vg_3(_5)$ Volts	Voltage on grid 4 Vg_4 Volts	Mutual conduct. S mA/V	Amplification factor μ	Internal resistance Ri Ohms	External anode resist. or optimum matching imped. Ra Ohm	Output at 10 % distortion Wo Watts	Grid A.C. voltage at the indicated output $V_{R.M.S.}$ Vi	Max. anode dissipation Wa_{max} Watts	Grid anode capacity Cag_1 μμF	Type Number
CK1	Octode	116×46	P35 (38)	4	indir.	13	0,200	200	1,6 [1] <0,015	—1,5	90	2 [2]	70	—1,5 —25	0,6 <0,002	—	1.5.10⁶ >10⁷	—	—	—	—	<0.06 [3]	CK1
								100	1,6 [1] <0,015	—2	90	2 [2]	70	—1,5 —25	0,55 <0,002	—	1,0.10⁶ >10⁷						
CH1	Variable-Mu Hexode	110×46	P35 (35)	5	indir.	13	0,200	200	2,2 [4] <0,15	—2 —24	100	4 [5]	—12 [6] or Rg_3 =0,5 MΩ	50	0,55 <0,002	—	2,0.10⁶ >10⁷	—	—	—	—	<0,003	CH1
				1, 2	indir.	13	0,200	200	4,0 <0.015	—2 —24	100	2,0 [7]	—2 —24	50	2.0 <0,002	—	2,0.10⁶ >10⁷						
CF3	Variable-Mu Pentode	106×43	P30 (34)	1, 2	indir.	13	0,200	200	8,0 <0,015	—3 —55	100	2,6	0	—	1,8 <0,002	1600	0,9.10⁶ >10⁷	—	—	—	—	<0,003	CF3
								100	8,0 <0.015	—3 —55	100	2,6	0	—	1,8 <0,002	450	0.25.10⁶ >10⁷						
CF2	Variable-Mu Pentode	109×43	P30 (34)	1, 2	indir.	13	0,200	200	4,5 <0,015	—2 —22	100	1,4	0	—	2,2 <0,002	3000	1,4.10⁶ >10⁷	—	—	—	—	<0,003	CF2
								100	4,5 <0,015	—2 —22	100	1,4	0	—	2.2 <0.002	800	0,4.10⁶ >10⁷						
CF7	H.F. Pentode	106×43	P30 (34)	1, 2, 7, 8, 11	indir.	13	0,200	200	3	—2	100	1,1	0	—	2,1	4200	2.0.10⁶	—	—	—	—	<0,003	CF7
								100	3	—2	100	1,1	0	—	2,1	1500	0,7.10⁶						
CF1	H.F. Pentode	109×43	P30 (34)	1, 2, 7, 8, 11	indir.	13	0,200	200	3	—2	100	0,9	0	—	2,3	4000	1,7.10⁶	—	—	—	—	<0,003	CF1
								100	3	—2	100	0,9	0	—	2,3	1400	0,6.10⁶						
CB1	Duodiode	89×29	V24 (54)	13	indir.	13	0,200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	CB1
CB2	Duodiode	81×29	V24 (53)	13	indir.	13	0,200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	CB2
CBC1	Duodiode-Triode	100×37	P30 (28)	9	indir.	13	0,200	200	4,0	—5	—	—	—	—	2,0	27	13.500	—	—	—	—	—	CBC1
								100	2,0	—2,5	—	—	—	—	1,8	27	15.000						
CC2	Triode	100×37	P30 (26)	3, 6, 10, 11	indir.	13	0,200	200	6,0	—1,5	—	—	—	—	2,5	30	12.000	—	—	—	—	1,7	CC2
								100	2,0	—1,5	—	—	—	—	1,8	30	16.000						
CL1	Power Pentode	109×43	P30 (32)	12	indir.	13	0,200	200	25	—14	200	—	—	—	2,5	—	50.000	8.000	1,7	9	5	—	CL1
CL2 [8]	Power Pentode	123×46	P35 (32)	12	indir.	24	0,200	200	40	—19	100	—	—	—	3.1	—	23.000	5.000	3,0	8.8	8	—	CL2
								200	40	—11	75	—	—	—	3,7	—	19.000	5.000	2,5	6.9	8		
								100	50	—15	100	—	—	—	3.8	—	16.000	2.000	1,7	9,7	5	—	
CL4 [8][9]	High-sensitivity Power Pentode	127×50	P35 (32)	12	indir.	33	0,200	200	45	—8,5 [10]	200	6,0	—	—	8,0	—	35.000	4.500	4	5	9	—	CL4
CBL1 [8][9]	Duodiode and high-sensivity Power Pentode	130×52	P35 (33)	13, 12	indir.	44	0,200	200	45	—8,5 [10]	200	6,0	—	—	8,0	—	35.000	4.500	4	5	9		CBL1
EM1	Tuning Cross [13]	75×27	P26 (39)	14	indir.	6,3	0,200	200 [14]	0.075 0,020	0 —4	—	Is=0.13 Is=0,14	—	Θ=10° [14] Θ=90° [14]	—	—	—	2,0.10	—	—	—	—	EM1
C/EM2	Electron ray Tuning Indicator	75×31	P30 (40)	14	indir.	6,3	0,200	200 [11] 200 [11] 200 [11]	—	—	Vs=200 Vs=200 Vs=200	—	Vg'=+3 Vg'=0 Vg'=-4,5	Θ=160° Θ=150° Θ=5° [14]	—	—	—	—	—	—	—	—	C/EM2
								200 [11] 0 [11]	—	—	Vs=200 Vs=200	—	Vg'=0 Vg'=0	Θ=150° Θ=90° [14]	—	—	—	—	—	—	—	—	
								200 [12]	3	—2,5	—	—	—	—	2,0	50	25.000	—	—	—	—	—	

[1]) The data of this horizontal column apply for the oscillating condition at V_{osc} = 8·5 $V_{R.M.S.}$ (Ig_1 = 190 μA) and for all-wave receivers. The valve must not be controlled by A.V.C. in the short wave range. The grid leak resistance amounts to 50,000 ohms and is connected to the neutral. The figure given in column Mutual Conductance indicates the conversion conductance.

[2]) Screen-grid current $Ig_2 + Ig_5$ = 3·8 mA.

[3]) Capacity between anode and grid 4.

[4]) The data of this horizontal column apply for the oscillating condition at V_{osc} = 9 $V_{R.M.S.}$ The figure in column Mutual Conductance gives the conversion conductance.

[5]) Ig_4 = 0·1 mA.

[6]) With fixed bias.

[7]) Ig_1 = 0·25 mA.

[8]) Not for car-radio.

[9]) Only for high anode voltages.

[10]) Only for automatic grid bias (Rk = 167 ohms).

[11]) Voltage on the triode anode.

[12]) Data for using the triode section for other amplifier purposes.

[13]) Electron ray tuning indicator.

[14]) Light sector, measured at the edge of the screen.

[15]) See page 15.